REMARKS

Claims 1, 4-13, 16-19, and 21 are pending in the current application. Claims 1, 13, 18 and 19 are independent claims. Claims 1, 4-5, 13, and 18-19 are amended by this Amendment. Claims 2-3, 14-15, and 20 are canceled by this Amendment. No new claims are added by this Amendment.

Telephone Interview

Applicant notes the telephone interview conducted with Examiner Fritz Alphonse on July 24, 2007. Applicant thanks the Examiner for his time and for discussing the present application. In particular, Applicant notes the Examiner was unwilling to consider the rejections in the current Office Action unless a response is filed, however, the Examiner did indicate claim 1 would be allowable if amended to include the features of claim 5. Upon further review and as detailed in the amendments above and the remarks below, Applicant respectfully submits that claim 1, amended to include the features of claim 3, further distinguishes claim 1 from the cited art. In particular, Applicant notes at least some of the features of claim 3 are somewhat similar to some of the features of claim 5 which the Examiner indicated contained allowable subject matter.

Claim Rejections

Claims 1-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Moulsley et al. (U.S. Pub. No. 2003/0100268, herein Moulsley) in view of Agee et al. (U.S. Pub. No. 2004/0095907, herein Agee). Applicant respectfully traverses this rejection.

Claim 1 is amended to recite *inter alia* "the objective function including at least a first term representing an effect on data throughput for at least one possible type of error in detecting a state of the received ACK/NACK feedback information, wherein the possible

type of error is missed detection of a NACK, and the first term represents a cost of an average

number of total bits to be retransmitted if a NACK is missed in detection."

The Examiner asserts at page 2 of the current Office Action that Moulsley at

paragraphs [0030] - [0033] discloses a term representing an effect on data for one possible

type of error in detecting a state of the received ACK/NACK feedback information.

However, Moulsley discloses only adjusting the decision threshold of the BS 100 so that the

transmit powers of the MS 110 may be optimized.[1] In particular, Moulsley discloses

minimizing the average or peak power requirement for the ACK/NACK field.[2] Moulsley

does not disclose any representation of an effect on data **throughput** for at least one possible

type of error in detecting a state of the received ACK/NACK feedback information, let alone

"wherein the possible type of error is missed detection of a NACK, and the first term

represents **a cost of an average number of total bits to be retransmitted if a NACK is**

missed in detection" as required by amended claim 1.

Further, the Examiner at page 3 of the current Office Action specifically asserts that

Mousley at FIG. 4 and paragraphs [0027]-[0028] discloses "wherein the possible type of error

is missed detection of a NACK, and the first term represents a cost of an average number of

total bits to be retransmitted if a NACK is missed in detection" as required by amended claim

1. However, Moulsley at paragraphs [0027]-[0028] merely discloses operating in two states

including a first state in which packet transmissions are expected and a second state in which

packet transmissions are not expected. Therefore, Moulsley does not disclose that "the first

term represents **a cost of an average number of total bits to be retransmitted if a NACK**

is missed in detection" as required by amended claim 1. To the contrary, Moulsley makes

no representation of a cost of an average number of total bits to be retransmitted if a NACK is

missed in detection. In particular, Moulsley at paragraph [0028] discloses "If no packet is

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[1] *See Moulsley* at paragraph [0030].
[2] *See Id.* at pargraphs [0030]-[0033].

detected, the test 404 is failed and a further test 410 is made to determine whether the timer is running. If the timer is running, the test 410 is passed and the MS 110 transmits, at step 412, a negative acknowledgement 204 in the corresponding ACK/NACK field, then returns to test 404. If the timer is not running, test 410 is failed and the MS 110 returns directly to test 404." Therefore, Moulsley merely determines if packets are detected and if a timer is running. Accordingly, Moulsley fails to disclose "the objective function including at least a first term representing an effect on data **throughput** for at least one possible type of error in detecting a state of the received ACK/NACK feedback information, wherein the possible type of error is missed detection of a NACK, and **the first term represents a cost of an average number of total bits to be retransmitted if a NACK is missed in detection**" as required by amended claim 1.

Applicant respectfully submits that even assuming for the sake of argument Moulsley and Agee are combinable (which Applicant does not admit), Agee fails to cure the deficiencies of Moulsley discussed above. Agee discloses at paragraph [0380] an objective function that includes the effect of other links in the network viewing them as responding to some extent to the transmit values [transmit and receive weights] of the current link q. However, transmit values are not a representation of an effect on data throughput, let alone "wherein the possible type of error is missed detection of a NACK, and the first term represents **a cost of an average number of total bits to be retransmitted if a NACK is missed in detection**" as required by amended claim 1. To the contrary, Agee discloses at paragraph [0109] "the process of beam-forming involves the application of weight values to the digital signals from each antenna element ('transmit weights'), thereby adjusting the numerical representation of their amplitudes and phases such that, when added together, they form the desired beam - i.e. the desired directional receive sensitivity. Accordingly, Applicant respectfully submits that Agee fails to cure the deficiencies of Moulsley discussed above in regards to amended claim 1.

Accordingly, Applicant respectfully submits that amended claim 1 is patentable for at least the above reasons. Applicant also respectfully submits that claims 13, 18, and 19 are amended to include features somewhat similar to those discussed above in regards to amended claim 1, and amended claims 13, 18, and 19 are therefore patentable for at least somewhat similar reasons. Further, Applicant respectfully submits that claims 4-12, 16-17, and 21, which depend from one of amended claims 1, 13, 18, and 19, are patentable for at least the same reasons discussed above in regards to amended claims 1, 13, 18, and 19 as well as on their own merits.

In view of the above, Applicant respectfully requests the rejections under 35 U.S.C. § 103(a) be withdrawn.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of the claims in connection with the present application is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Gary D. Yacura at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By _____

Gary D. Yacura, Reg. No. 35,416

Scott A. Elchert, Reg. No. 55,149

P.O. Box 8910
Reston, Virginia 20195
(703) 668-8000

GDY/SAE/AAM: tlt